

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION FIELD OPERATIONS TRAINING MANUAL

Volume - II: Compliance

Chapter 5: Cargo Tank Facility Reviews

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1. INTRODUCTION/POLICY

- a. The cargo tank facility review (CTFR) is an in-depth review of a cargo tank inspection, testing, repair, assembly, and/or manufacture facility's compliance with the applicable Hazardous Materials Regulations (HMR).

The report form is designed to provide the Federal Motor Carrier Safety Administration with statistical information that will be used to determine the level of compliance. A focus sample of facility records and practices must be reviewed prior to making recommendations and technical assistance to the facility as well as administration action, which may involve imposing civil penalties, requiring corrective actions through use of a Notice of Investigation attaching a Proposed Compliance Order or Consent Agreement, or actions taken through a U.S. District Court.

- b. Safety specialists will follow the Federal Motor Carrier Safety Administration's policies set forth in this Volume of the manual as they apply to a CTFR.
- c. The CTFR report is part of the CAPRI software. Violations, recommendations and Part C information is entered using the same procedures as a regular compliance review. The report form Parts A, B, and C serve the purpose set forth in this Volume.

- d. If a cargo tank facility performs inspection and testing functions as well as repair, assembly, or manufacturing functions, the review procedures set forth in paragraphs 2 **and** 3 must be followed.
- e. Cargo Tank Facilities (CTF) should be chosen for review based on known violations of acute/critical regulations (see Chapter 11 for a list of these regulations) found during cargo tank carrier/shipper/facility reviews, prior compliance/enforcement history, complaints, roadside inspections, or lack of compliance information (no prior review).
- f. A CTFR will be conducted in addition to a motor carrier review whenever a cargo tank motor carrier is found to be conducting tests, inspections, repairs, or any other function covered by 49 CFR, Part 180 which requires the facility to register under 49 CFR, Part 107, Subpart F.

If a cargo tank facility is found to also be a motor carrier or shipper, a review of the motor carrier/shipper operations will not be conducted unless there are indications of substantial non-compliance with the FMCSR's or HMR's.

- g. Due to the specialized and technical nature of cargo tank facility reviews, they will be conducted as follows:
 - (1) Cargo tank manufacturer facility reviews will be conducted by Cargo Tank TAG members or safety specialists with similar training and experience with assistance from an engineer.
 - (2) Cargo tank assembler or repair facility reviews will be conducted by Cargo Tank TAG members, an HM Specialist, or safety specialist with similar training and experience with assistance from an engineer when appropriate.
 - (3) Cargo tank inspection and test facility reviews may be conducted by state or federal field safety specialists who have successfully completed the Cargo Tank Test and Inspection Facility Course and/or demonstrated experience in conducting test and inspection facility reviews.
- h. The field staff will require the facility to update the Research and Special Programs Administration (RSPA) Registration as soon as it is known that a facility is conducting operations subject to the HMR's, or that they have changed the operations for which they are registered.

- i. Cargo Tank Facilities are not required to maintain copies of inspection/test reports or records of repairs, modification, stretches, or re-barreling. If a facility is maintaining these records, they must be made available upon request. If records are not available, a sample of these records should be obtained by request from, or a visit to, a motor carrier using the facility.

2. INSPECTION/TEST FACILITY REVIEW PROCEDURES

- a. Planning. Review the facility's field office file to become familiar with previous and current safety or compliance problems. Review educational assistance and enforcement resources that the Federal Motor Carrier Safety Administration, State, and local governments have expended to encourage the facility to comply with the regulations. Request and review Cargo Tank Registration information from RSPA and, if possible, roadside inspection violations from a motor carrier known to be using the facility. Review general applicability of the regulations, and jurisdiction exercised by Federal Motor Carrier Safety Administration and/or State.
- b. Procedures to Conduct the Review
 - (1) Perform opening interview as recommended in Chapter 1 of this Volume. Advise the designated company officials that you will need to speak with the Registered Inspector(s) and individuals responsible for compliance with the HMR's.
 - (2) Utilizing the CTFR software and the applicable Cargo Tank Worksheets (see Illustration 5-1) review the facilities operational facilities.
 - (3) Review copies of all correspondence (registration information, interpretations, clarifications, etc.) with RSPA and/or the Federal Motor Carrier Safety Administration.
 - (4) Take a tour of the facility to become familiar with the procedures, operations, and testing equipment being utilized in the shop area.
 - (5) Review inspection and test reports, work orders, and design and construction certificates.
 - (6) If possible, observe a Registered Inspector(s) while conducting tests and inspections to evaluate knowledge and proper application of the testing and/or inspection requirements.
 - (7) Conduct walk-around inspections of cargo tanks which have completed inspections/tests. If defects are found, check to ensure they were noted on the inspection/test report and that any required testing was conducted to verify the acceptability of the defect.

c. Inspection/Test Facility Sampling

- (1) Review functions performed in the preceding 12 months (365 days). If the period since the prior review is less than 12 months, review the functions performed since the prior review.
- (2) Examine the procedure and equipment for each type of inspection/test conducted by the facility.
- (3) Examine reports for each type of inspection/test being performed by the facility for accuracy and required information.
- (4) For the purposes of conducting walk-around inspections, the safety specialist will use the sampling procedure listed below:

Cargo Tank Inspection/Test Form Sampling	
Number of Cargo Tanks Handled Each Year	Number of Cargo Tanks to be Inspected
1-5	All
6-25	5
26-50	8
51-90	13
91-150	20
151-280	32
281-400	50
401-500	68
501+	80

Note: Unless full Level I or Level V inspections are conducted using the guidelines in Chapter 2 of this manual, these inspections will not be used to verify compliance with Parts 393 and 396 of the regulations or to determine the OOS rate.

- (5) First select tanks for which inspection/test report verification and walk-around inspections will be conducted from any known or alleged violations. Next select tanks for the most recent tests/inspections completed. Finally, if no cargo tanks are available, arrange to inspect cargo tanks at the nearest motor carrier to validate

performance of tests/inspections with completed reports.

Note: If possible, tanks should be select for inspection which have defects noted on the reports as well as those with no defects noted.

- (6) If the sample indicates a high degree of noncompliance, the sample should be expanded to determine the degree of noncompliance and to determine what administration action is appropriate.

d. Concluding the Review

- (1) The closeout session should be conducted as described in Chapter 7 of this Volume as the elements apply to a CTFR.
- (2) The investigator will keep a record of the tanks and dates for each violation counted. Information on individual violations will be presented at the facility's request.
- (3) Recommendations and technical assistance to assist the facility in gaining compliance will be provided during the closeout session.
- (4) Additional information relevant to the above subjects which is not specifically addressed in Part A and/or Part B must be entered in Part C, Field 59.

3. ASSEMBLY, REPAIR, AND MANUFACTURER REVIEW PROCEDURES

a. Planning

- (1) Review the facility's field office file to become familiar with previous and current safety or compliance problems. Review educational assistance and enforcement resources that the Federal Motor Carrier Safety Administration, State, and local governments have expended to encourage the facility to comply with the regulations. Review general applicability of the regulations, and jurisdiction exercised by Federal Motor Carrier Safety Administration and/or State.
- (2) Engineering assistance will be required for all manufacturer reviews or assembly reviews for which a Design Certifying Engineer (DCE) is required to certify all or part of the design, and for repair facilities conducting stretching or modification of tanks which requires certification by a DCE. Procedures for conducting engineering analysis are set forth in Illustration 5-2 at the end of this Chapter.

Engineering assistance may not be required for a manufacturer/assembly facility which has had Federal Motor Carrier Safety Administration engineering analysis of its designs within the past 2 years, if no significant changes have been made to the design since the analysis.

- (3) If a manufacturer review is to be conducted or engineering support is necessary for an assembly or repair facility review, refer to Illustration 5-3 and Illustration 5-4 for considerations and procedures for working with engineers. Meet with the engineer to review the information in these Illustrations.

b. Procedures to Conduct the Review

- (1) Follow the review procedures outlined in paragraph 2b of this Chapter.
- (2) When an engineering analysis of a cargo tank design is to be conducted:
 - (a) Ensure that all the Information Collection for Structural Analysis (Illustration 5-4) is obtained.
 - (b) Ensure that all cargo tank designs are certified by a Design Certifying Engineer.
 - (c) Locate a completed vehicle and verify that the work performed matches the certified design parameters. This would include verification of overall design, dimensions, weld procedures, location of auxiliary equipment, and any other design details.

c. Repair, Assembly, Manufacture Facility Sampling

- (1) Review functions performed in the preceding 12 months (365 days). If the period since the prior review is less than 12 months, review the functions performed since the prior review.
- (2) Review of cargo tank manufacture and repair facilities should focus on DOT 400 series cargo tanks or recently manufactured MC 331s or 338s.
- (3) Any review of MC 306, 307, or 312 cargo tanks should be limited to situations arising from actual failure of the tank or its accident protection, stretching of a tank, or modification of a tank.
- (4) When conducting an examination of an assembly, or manufacture facility, the safety specialist will examine the procedure and equipment for one tank design. The first choice of design will be made based on known violations or violations alleged in a complaint. If there is no such information, selection will be representative of the largest part of the facility's operation. (i.e. a facility manufactures 100

DOT-406 tanks and 10 DOT-407 tanks, analysis should be conducted on the 406 tank unless other factors would indicate otherwise. Written support must be provided for deviation from the selection process)

- (5) While conducting an examination of a repair facility, the safety specialist will examine the procedure and equipment for each repair function that is performed. (i.e. 1 tank repaired, 1 tank stretched, 1 tank modified, and/or 1 tank re-barreled). The first choice of the procedure to be examined will be made based on known violations or violations alleged in a complaint. If no such information exists, selection will be made based on availability of the tank for examination.
- (6) The safety specialist will examine all documents for the tank/function which has been chosen for examination.
- (7) If the sample indicates a high degree of noncompliance, the sample will be expanded to determine the degree of noncompliance and to determine what administration action is appropriate.

d. Concluding the Review

- (1) Conduct closeout as prescribed in paragraph 2c of this Chapter.
- (2) If the engineering analysis is not completed, inform the official that until the conclusion of that analysis the review is not officially completed. At this time the CTF Part A should be marked "Pending" at the top, and a copy of the review provided to the facility as outlined in Chapter 7 of this Volume.

Upon completion of the engineering analysis, the safety specialist will update the report as necessary and provide a final copy of Part A and Part B to the facility. The safety specialist should explain any differences between the pending review and the final review and update the facility on planned actions.

Note: Engineering analysis does not constitute an endorsement of a cargo tank design.

- (3) If administrative action is planned, notify the designated facility official.

If administrative action is initiated based on engineering analysis, a copy of the analysis will be sent to the manufacturer with a cover letter in the format shown in Illustration 5-5 to allow for comments before finalizing the review.

- (4) Additional information relevant to the above subjects which is not specifically addressed in Part A and/or Part B must be entered in Part C, Field 59.
- e. Administrative action
 - (1) If the violations discovered could result in a hazardous materials spill (inadequate structural integrity, inadequate accident damage protection, inadequate venting, etc.), administrative action will include provisions that the tanks are modified to be in compliance with the specifications or taken out of hazardous materials service. This will be done by one or both of the following procedures:
 - a. A Consent Agreement with the manufacturer. A uniform Consent Agreement will be provided by MC-ECH.
 - b. A Federal Register Notice which informs the public of the non-specification tanks. The Federal Register Notice will be mailed to owners of the affected cargo tanks.
Note: Publication in the Federal Register of a notice that cargo tanks were not manufactured to specification will not occur unless the party signs a Consent Agreement or a Final Order is issued finding culpability.
 - (2) Administrative action initiated due to violations indicating that the tank was not constructed to the requirements of the specification which could result in a hazardous materials spill (inadequate structural integrity, inadequate accident damage protection, inadequate venting, etc.) will include assessment of civil penalties calculated through the Uniform Fine Assessment program. If the manufacturer signs a Consent Agreement which includes correcting the violations, this amount can be lowered. However, in no instance will correction of the violation, in and of itself, be considered justification for the waiver of all monetary penalties.
 - (3) Any administrative action initiated which involves modification of cargo tanks or removal from HM service will be publicized using a press release. All enforcement and outreach efforts in this area should be coordinated with MC-ECH.

4. COMPLETION OF FORMS

- a. Part A - Carrier/Shipper Identification - If a facility is also a motor carrier, this form is to be prepared as specified in Chapter 7 of this Volume.

- b. CTFR Part A - Facility Identification - The CTFR Part A is generated by completing the Part A tab in CAPRI (Identification and Misc subtabs) as well as information from the CTFR tab. (Note: Not all tabs are required to be accessed for the Part "A" to print completely but all required information should be entered to ensure a quality product.

(1) Part A Tab (Identification)

- (a) Legal Name - Enter the legal name of the cargo tank facility.
- (b) Operating or DBA name - Enter the operating or 'doing Business As' name of the cargo tank facility.
- (c) Locator1 - Enter the primary locator to locate the cargo tank facility from the cargo tank facility list.
- (d) Locator2 - Enter the secondary locator to locate the cargo tank facility from the cargo tank facility list.
- (e) USDOT Number - Enter the USDOT number assigned to the cargo tank facility.
- (f) State # - Enter the state census number, if assigned, of the cargo tank facility.
- (g) State ID - Enter the specific state-identifying number
- (h) Business Organization - Enter the business organization type of the cargo tank facility.
- (i) Tax ID Type - Enter the tax ID type depending on the type of business organization of the cargo tank facility.
- (j) Tax ID Number - Enter the Federal Tax ID # or the social security number.

(2) Part A Tab (Miscellaneous)

- (a) Date Report Signed - Enter the date the responsible company official signed the report.
- (b) Gross Revenue - Enter the most recent revenue figures of the cargo tank facility.

- (c) Fiscal Year Ending - Enter the last day of operations of the fiscal year for the motor carrier.
- (d) Principal SI Code - Enter the SI code of the principal safety investigator performing the review.
- (e) Principal SI last name - Enter the last name of the principal safety investigator performing the review.
- (f) Assistant SI Code(s) - Enter the SI codes of one or two additional Safety Investigators who assisted in conducting the review.
- (g) Persons Interview - Enter the name and title of two persons interviewed during the review.

(3) CTFR Tab (Start)

- (a) Enter cargo tank facility type - (Manufacturing, assembly, repair, inspection/test, component mfg. DCE)
- (b) Enter cargo tank facility activity - Check the appropriate tank specification.
- (c) Enter Mfg/Assembly Type - (Semi-trailer, tank truck, full trailer, other)
- (d) Enter components manufactured - (pressure relief valves, manhole assemblies, excess flow valves, external/internal self closing valve, venting devices, other)

(4) CTFR Tab (Facility Address)

- (a) Enter the physical address of the cargo tank facility - The principal place of business street address where all the safety records of facilities will be made available for inspection. This includes the city, state abbreviation, zip code and three digit county code.
- (b) Corporate mailing address - Enter the corporate mailing address of the cargo tank facility.
- (c) Enter phone numbers - Select the Voice 1 field and the enter the phone number of the cargo tank facility. Select the voice 2 field and enter a toll free number if one is available. Select the fax field and enter the fax number of the subject.
- (d) E-Mail Address - enter the e-mail address of the cargo tank facility. (Note - this is not a mandatory field).

- (5) Tab CTFR (Other General)
 - (a) Enter dates relative to the start of CTFR engineering Analysis. Also included are some registration data such as “U” stamp, “R” stamp, CT #, etc.
- (6) Tab CTFR (Personnel)
 - (a) Register Inspector - Enter the name of each *registered inspector* and check the qualified box if appropriate. Check the relevant functions performed. The navigation bar may be used to add or delete individuals.
 - (b) Authorized Inspector - Enter the name of each *authorized inspector* and his/her agency. The navigation bar may be used to add or delete individuals. An authorized inspector means an Inspector who is currently commissioned by the National Board of Boiler and Pressure Vessel Inspectors and employed as an Inspector by an Authorized Inspection Agency. (Care should be taken not to confuse the two)
 - (c) Other Personnel - Enter the name of other personnel involved in the CTFR inspection.
 - (d) Person Responsible for Compliance - Enter the name and title of the person holding responsibility for compliance at the cargo tank facility.
- (7) Tab CTFR (Inspection/Testing 2)
 - (a) Inspection Type - Enter the types of inspections being performed and check for necessary equipment.
 - (b) Inspection Reports - Enter the number of reports checked and violations discovered.
- c. Part B - Compliance Review
 - (1) Part B should be completed as specified in Chapter 7 of this Volume except where specifically modified herein.
 - (2) The CT identification number for the facility is to be manually written on each page of Part “B” adjacent to the DOT number.
 - (3) See Illustration 5-6 for a list of suggested recommendations to be used when completing Part B.

- d. Part C - Carrier/Shipper Evaluation
 - (1) Part C should be completed as specified in Chapter 7 of this Volume, except where specifically modified herein.
 - (2) The CT identification number for the facility is to be manually written on each page of Part “C” adjacent to the DOT number.
 - (3) Reason for Review - Safety ratings are not assigned to cargo tank facilities. **DO NOT** enter “A” as a reason for review. This selection is no longer valid.
 - (4) Parts Reviewed Certification - Mark each box indicating the part was reviewed using the sampling criteria. Generally facility reviews cover Parts 107 (Registration), 171 (Applicability), 172 (Training), 178 (Specifications for Packaging), and 180 (Continued Qualification and Maintenance of Packaging).
- e. Cargo Tank Facility Worksheets
 - (1) The CTF worksheets are designed as internal documents to assist in evaluating the facility and documenting the operation of the facility.

5. DISTRIBUTION OF FORMS

- a. A copy of the Parts A & B of the review should be provided to the cargo tank facility upon completion of the review.
- b. If administrative action is planned, a copy of the review should be mailed to the corporate office, Parts A and B only.
- c. The original copy of the review should be kept in the Federal Motor Carrier Safety Administration file for the division in which the facility is domiciled. If the review is conducted by a State Official, a copy may be kept in the facility file in the state office.
- d. One copy should be forwarded to the Federal Motor Carrier Safety Administration Division where the corporate offices are located if the corporate offices are different from the review location.
- e. The review should be transferred electronically to MC-ECH. Presently, CTFR’s cannot be uploaded through Safetynet. Following these steps will ensure a complete and proper transfer of a CTFR:

- (1) Go to "Backup/Restore" under the file menu.
 - (2) Mark CTFR(s) to be uploaded
 - (3) Change the "Path" (in the lower left corner) to an empty directory or disk.
 - (4) Backup files.
 - (5) E-mail all files in the backup directory to CTFR.
 - (6) It is not necessary to send hard copies of the review.
- f. Prompt Transmittal - each CR should be completed and forwarded within 7 days of completion of the review.
- g. The CTF worksheets are to be maintained in the facility file, it is not necessary to forward the worksheets to MC-ECH with the CFTR. A copy of the worksheets may be provided to the CT facility.